

NOMAD-01 Nomadic Furniture System / 2019 AFTERHOURS Design Collaborative

Most vehicle camper systems are one-offs: they are often clunky, designed for permanance, and are not designed to have a life once taken out of the truck - they usually end up in the trash. The design objective for this project was to create a camper system that is easy to take in or out of the truck and, when not being used in the vehicle, could be utilized as furniture in a home.

The result is what may be called a nomadic furniture system. The assembly is comprised of a series of unique "boxes" which fasten together to create a rigid, functional camper setup. Three boxes made from 1/2" Baltic Birch plywood line each side with 3/4" slats running between to support the sleeping deck. The drawer is composed of four 3/8" plywood boxes mounted to 1" steel tube rails. Tee nuts and hex socket head machine screws are used throughout, allowing for repeated assembly/disassembly. Skateboard bearings mounted to the flanking boxes receive the drawer's steel tubes allowing it to roll and cantilever outward for storage access. The design of the system sought to maximize storage space and accessibility when in the truck - every nook and cranny is used. Thanks to iterative cardboard mock-ups, the fit is precise to a point that no fasteners are needed to secure the furniture to the truck bed. The system can be installed or uninstalled using two allen keys in 25 minutes.

The form and detail of each "box" in the assembly was iteratively developed in response to the geometric constraints of the truck bed, the storage requirements of each box when in the truck, and their intended use when used as furniture in the home. When removed from the truck, the ideosyncratic forms and details reveal themselves, resulting in bespoke furniture pieces inviting curiosity, playfulness, and delight in the home.



The vehicle is a 1998 Toyota Tacoma single cab with a 6ft bed. A side-mounted bike rack was also developed.

Years Design 2019 Construction 2019

Design AFTERHOURS: Garrett Rauck

Construction AFTERHOURS: Garrett Rauck

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Preliminary 3D concept model.



Timelapse stills illustrating install sequence. The system can be installed or uninstalled using two allen keys in 25 minutes. The fit of the furniture is precise to a point that no fasteners are needed to secure it to the truck bed.







Photographs illustrating layers of the assembly and functional details. Three boxes made from 1/2" Baltic Birch plywood line each side with 3/4" slats running between to support the sleeping deck. The 3/4" plywood sleeping deck is segmented into five panels with finger holes which allow panels to be lifted to access the drawer storage when sitting in the truck. Hatch lids along the flanks separate "table" surfaces from storage underneath. Tee nuts and hex socket head machine screws used throughout allow for repeated assembly/disassembly. Skateboard bearings receive the steel tube of the drawer, allowing it to roll and cantilever outward. Rubber feet provide footing for pieces when disassembled and used in the home.

Photograph of isolated furniture system, drawer extended. The drawer is composed of four 3/8" plywood boxes mounted to 1" steel tube rails which serve as drawer slides.





(Top) Initial storage plan sketch delineating locations of all necessary items and boxes designed to accommodate such storage. (Bottom) Iterative cardboard mock-ups allowed for testing of storage capacity and fit of each component. As a result of this process, the final product is precise to a point that no fasteners are needed to secure the furniture to the truck bed.





Photographic composite illustrating storage strategy. Each box was specifically designed to store respective objects - water tank (bottom left), toiletries (bottom left), laundry (bottom right), dirty shoes (bottom right), clothing (center drawer, with movable partitions), books/laptop (left, right), tools (top left), electronics (top right).







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Plan drawing used for refinining details/tolerances and used during final fabrication.







Cut schedules and part layouts used during fabrication. No digital fabrication was used - all panels were cut to size on the table saw, holes were drilled on the drill press, rabbets were routed on a router table.



Construction process photographs. All hardware, including finish screws, was selected so that boxes could be assembled/disassembled as needed to allow for adjustments or modifications in the future. No glue was used.